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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,601	07/10/2003	Arthur L. Backman	201TR046A	3617
37535	7590	09/08/2005	EXAMINER	
NOVEON IP HOLDINGS CORP. 9911 BRECKSVILLE ROAD CLEVELAND, OH 44141-3247			HOOK, JAMES F	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,601

Applicant(s)

BACKMAN ET AL.

Examiner

James F. Hook

Art Unit

3754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/16/03; 1/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadr in view of Nuss. The patent to Sadr discloses the recited multilayer polyethylene pipe comprising an inner layer 12 formed of HDPE, a contiguous layer 14 formed of HDPE, a barrier layer 18 can be provided and an outer layer 22 of HDPE. The patent to Sadr discloses all of the recited structure with the exception of crosslinking a polyethylene layer, specific dimensions of the layers and diameters, the density of the HDPE, the process used to crosslink the polyethylene, and coloring the outer layer. The thicknesses of layers, diameter of the pipes and the density of the HDPE are considered to be obvious choices of mechanical expedients and it would have been obvious to one skilled in the art to modify the layers to be formed of any thickness and diameter and to modify the HDPE to be of any desirable density as such would only require routine skill in the art and routine experimentation to arrive at optimum values for use in specific environments. The manner in which crosslinked polyethylene is formed, and amount it is crosslinked, is considered old and well known in the art and an obvious choice of mechanical expedients, however, it is also considered that such are merely method steps in an article claim which would not affect

Art Unit: 3754

the final product of the layer, that being a crosslinked polyethylene layer. The patent to Nuss teaches that it is old and well known in the art of tubes to cross link HDPE to form a layer that is stronger, and to provide the outermost layer with pigments thereby providing it with color. It would have been obvious to one skilled in the art to modify the HDPE layers of Sadr to be formed of cross linked HDPE by crosslinking the HDPE of Sadr as such would make the layers stronger, and to provide the outer layer with pigment as such are known additives which can be added to polymer layers as suggested by Nuss where such would provide a more appealing and a stronger hose which where layers would adhere better and be stronger due to the crosslinking thereby extending the life of the tube and reducing replacement costs.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sadr in view of Nuss and Skarelius. The patent to Sadr discloses the structure set forth above, with the exception of crosslinking the polyethylene layers, specific dimensions of the layers and diameters, the density of the HDPE, amount of crosslinking, and providing an oxygen barrier other than polyethylene. The thicknesses of layers, diameter of the pipes and the density of the HDPE are considered to be obvious choices of mechanical expedients and it would have been obvious to one skilled in the art to modify the layers to be formed of any thickness and diameter and to modify the HDPE to be of any desirable density as such would only require routine skill in the art and routine experimentation to arrive at optimum values for use in specific environments. The manner in which crosslinked polyethylene is formed, and amount it is crosslinked, is considered old and well known in the art and an obvious choice of mechanical

Art Unit: 3754

expedients, however, it is also considered that such are merely method steps in an article claim which would not affect the final product of the layer, that being a crosslinked polyethylene layer. The patent to Nuss teaches that it is old and well known in the art of tubes to cross link HDPE to form a layer that is stronger, and to provide the outermost layer with pigments thereby providing it with color. It would have been obvious to one skilled in the art to modify the HDPE layers of Sadr to be formed of cross linked HDPE by crosslinking the HDPE of Sadr as such would make the layers stronger, as suggested by Nuss where such would provide a stronger hose which where layers would adhere better and be stronger due to the crosslinking thereby extending the life of the tube and reducing replacement costs. The patent to Skarelius discloses that it is old and well known in the art to use an oxygen barrier such as PVAL in combination with crosslinked polyethylene layers. It would have been obvious to one skilled in the art to modify the barrier layer of Sadr to be formed of a material other than polyethylene such as PVAL as such is a known equivalent barrier layer used especially when polyethylene layers are crosslinked, as suggested by Skarelius where such would provide a barrier layer to other materials which may pass through the inner layers especially if such are crosslinked where such would prevent failure of the tube.

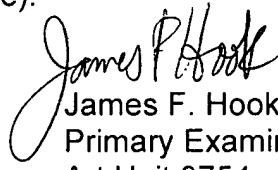
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Dalal, Backman, Gilmont, Kosewicz, Boonstra, Behr, Stine, Johansson, and Zimmer disclosing state of the art multilayer tubes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


James F. Hook
Primary Examiner
Art Unit 3754

JFH